

IN THE CLAIMS:

Cancel claims 5-7 and 13-20 without prejudice or disclaimer.

Please amend the claims as shown below:

Claims 1 and 2 (canceled)

Claim 3 (currently amended): A semiconductor optical device ~~comprising: according to claim 5, wherein said blocking semiconductor layer has~~

a first conductivity type semiconductor substrate having a main surface;

a stripe-shaped optical waveguide disposed on said main surface of said semiconductor substrate, said waveguide including an active layer;

a current blocking part disposed on said semiconductor substrate, said current blocking part including a blocking semiconductor layer, said blocking semiconductor layer having a thickness of at least 1 μm and an InP semiconductor doped with Fe at a concentration of $5 \times 10^{15} \text{ cm}^{-3}$ to $5 \times 10^{16} \text{ cm}^{-3}$, said optical waveguide being buried within said current blocking part;

a second conductivity type cladding layer disposed on said optical waveguide and said current blocking part;

a first electrode electrically connected to said semiconductor substrate;

a second electrode electrically connected to said electrically conductive layer;

a trench having a bottom in contact with said current blocking part; and

an insulating film disposed on a surface of said trench.

Claim 4 (currently amended): A semiconductor optical device according to claim 3 ~~5~~, wherein said current blocking part further includes a hole blocking layer comprising an InP semiconductor of a conductivity type opposite from that of said electrically conductive layer.

Claim 5-7 (canceled)

Claim 8 (currently amended): A semiconductor optical device according to claim 3 ~~7~~, wherein said insulating film comprises an insulating silicon compound.

Claim 9 (currently amended): A semiconductor optical device according to claim 3 ~~5~~, wherein said optical waveguide comprises a first conductivity type semiconductor layer, a second conductivity type semiconductor layer, and an active layer;

said active layer being provided between said first and second conductivity type semiconductor layers.

Claim 10 (original): A semiconductor laser device comprising the semiconductor optical device according to claim 9.

Claim 11 (original): A semiconductor optical modulation device comprising the semiconductor optical device according to claim 9.

Claim 12 (currently amended): A semiconductor optical integrated device comprising:

a first conductivity type semiconductor substrate having a main surface, said main surface including a laser device region and an optical modulation device region arranged in a predetermined direction;

a stripe-shaped first optical waveguide longitudinally extending in said predetermined direction on said laser device region;

a stripe-shaped second optical waveguide longitudinally extending in said predetermined direction on said optical modulation device region;

a current blocking part disposed on said semiconductor substrate, said current blocking part including a blocking semiconductor layer, said blocking semiconductor layer having a thickness of at least $1\mu\text{m}$ and comprising an InP semiconductor doped with Fe at a concentration of at least $5 \times 10^{15} \text{ cm}^{-3}$ to $5 \times 10^{16} \text{ cm}^{-3}$, having both of said first and second optical waveguides being buried therein within said current blocking part;

~~an electrically conductive~~ a second conductivity type cladding layer disposed on said current blocking part and first optical waveguide on said laser device region;

~~an electrically conductive~~ a second conductivity type cladding layer disposed on said current blocking part and second optical waveguide on said optical modulation device region;

a first electrode electrically connected to said semiconductor substrate, a second electrode electrically connected to said electrically conductive layer on said laser device region, and a third electrode electrically connected to said electrically conductive layer on said optical modulation device region; ~~and~~

a trench extending in said predetermined direction along said first and second optical waveguides and having a bottom in contact with said current blocking part; and

an insulating film disposed on a surface of said trench;

each of said first and second optical waveguides including a first conductivity type semiconductor layer, a second conductivity type semiconductor layer, and an active layer;
~~said active layer being provided~~ between said first and second conductivity type semiconductor layers.

Claims 13-20 (canceled)